



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,513	03/26/2004	Yoshiyuki Ito	119264	8587
25944	7590	01/12/2007	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			MORRISON, THOMAS A	
			ART UNIT	PAPER NUMBER
			3653	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/809,513	ITO, YOSHIYUKI
	Examiner	Art Unit
	Thomas A. Morrison	3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 23 October 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 16-19 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-15 and 20-23 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 April 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/26/04</u> . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of the species directed to Figures 4, 6, 7 and 8 in the reply filed on 10/23/2006 is acknowledged. The traversal is on the ground(s) that the subject matter of all species is sufficiently related that a thorough search for the subject matter of any one species would encompass a search for the subject matter of the remaining species; and the search of the entire application could be made without serious burden. This is not found persuasive because searching for each of the patentably distinct structures of the species set forth in Figures 1, 4, 6, 7 and 8 would present a serious burden to the examiner. For example, it would be a serious burden to search for the gear arrangement set forth in Fig. 4, as well as the patentably distinct belt drive mechanism shown in Fig. 8. Thus, claims 1-15 and 20-23 have been examined, and claims 16-19 have been withdrawn from further consideration as being drawn to a non-elected species.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5, 7-15 and 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission

amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structural relationship between the apparatus fixing unit and the locking portion in claim 5 that allows the apparatus fixing unit to fix the paper feeder to a support base when the locking portion operates, as claimed. There is insufficient structural relationship recited between the apparatus fixing unit and the locking portion in claim 5 to understand how the claimed function can occur?

Claims 7-8 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structural relationship between the unit fixing unit and the locking portion in claim 7 that allows the unit fixing unit to fix the paper feed cassette unit to the second paper feed cassette unit when the locking portion operates, as claimed. There is insufficient structural relationship recited between the unit fixing unit and the locking portion in claim 7 to understand how the claimed function can occur?

Claim 7 recites the limitation "the paper feed cassette unit" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 9, it is unclear what element(s) the lock reception portions are connected to. What elements are the lock reception portions connected to?

Claims 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such

Art Unit: 3653

omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structural relationship between the support base hook and the lock gear in claim 12 that allows the support base hook to project toward the support base in accordance with rotations of the lock gear, as claimed; and (2) the structural relationship between the hook and the lock gear in claim 13 that allows the hook to be movable in a direction of the stack, as claimed. There is insufficient structural relationship recited in these claims to understand how the claimed functions can occur? What structure allows the hook to move, as claimed?

Regarding claim 12, this claim recites “the lock **gear**”. Claim 9, from which claim 12 depends recites “rotatable lock **gears**”. As such, it is unclear which one of the lock gears in claim 9 is referred to by the recited “the lock gear” of claim 12.

Claim 14 recites the limitation "the engagement portion" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 21, it is unclear how many different paper feed containers are claimed. Are there at least 4 different paper feed containers?

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structural relationship between the fixing and unfixing interlocking portion and the plurality of

paper feed containers that allows the claimed fixing/unfixing of selected ones of the paper feed containers to occur, as claimed.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structural relationship between the first and second locking portions that allows the claimed locking/unlocking to occur, as claimed. There is insufficient structural relationship recited between the first and second locking portions to understand how locking of one of these locking portions locks the other one of these locking portions.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4, 6-8 and 20-22, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,785,308 (Flores et al.).

Regarding claim 1, Figs. 1-12 show a paper feeder (Fig. 2) comprising: a first paper feed cassette (15) in which to store a recording medium with a lock state that is selected from an unlocked state (e.g., Fig. 4) where the recording medium can be taken out therefrom and a locked state (e.g., Fig. 1) where the recording medium cannot be taken out therefrom;

a locking portion (including top element 36 in Fig. 11) that brings the lock state of the first paper feed cassette (15) into the unlocked state or the locked state;

a second paper feed cassette (20) in which to store a recording medium, capable of selectively entering an unlocked state (e.g., Fig. 10) where the recording medium can be taken out therefrom and a locked state (e.g., Fig. 1) where the recording medium cannot be taken out therefrom; and

a lock state transmitting portion (including 107 and/or 108) that transmits the lock state of the first paper feed cassette (15) to the second paper feed cassette (20) to bring the second paper feed cassette (20) into the unlocked state or the locked state in accordance with the lock state of the first paper feed cassette (15).

Regarding claim 2, Figs. 1-12 show that the lock state transmitting portion (including 107 and/or 108) mechanically transmits the lock state of the first paper feed cassette (15) to the second paper feed cassette (20).

Regarding claim 4, col. 7, lines 9-26 disclose that the second paper feed cassette (20) includes an avoidance unit that allows the second paper feed cassette (20) to avoid being brought into the locked state by the lock state transmitting portion (including 107 and/or 108).

Regarding claim 6, col. 3, lines 55-59 disclose a first paper feed cassette unit (11) including the first paper feed cassette (15); and

a second paper feed cassette unit (12) including the second paper feed cassette (20);

wherein the first paper feed cassette unit (11) and the second paper feed cassette unit (12) are separated from each other, being removably attached to each other.

Regarding claim 7, col. 3, lines 55-59 and Figs. 11-12 disclose a unit fixing unit that fixes the paper feed cassette unit (11) to the second paper feed cassette unit (12) when the locking portion (including top element 36 in Fig. 11) is operated to bring the lock state of the first paper feed cassette (15) into the locked state.

Regarding claim 8, Fig. 2 shows that one of the first paper feed cassette unit (11) and the second paper feed cassette unit (12) is an image forming apparatus body of an image forming apparatus.

Regarding claim 20, Figs. 1-12 show at least one more paper feed cassette (25) in which to store a recording medium, capable of selectively entering an unlocked state (e.g., Fig. 10) where the recording medium can be taken out therefrom and a locked state (e.g., Fig. 1) where the recording medium cannot be taken out therefrom;

wherein the lock state transmitting portion (including 107 and/or 108) further transmits the lock state of the first paper feed cassette (15) to the at least one more paper feed cassette (25) to bring the at least one more paper feed cassette (25) into the unlocked state or the locked state in accordance with the lock state of the first paper feed cassette (15).

Regarding claim 21, as best understood, Figs. 1-12 show a paper feeder comprising:

a plurality of paper feed containers (11 and 12) in each of which to store a recording medium;

a fixing and unfixing portion (including elements 36 and 36 at the top and 2nd from the top, respectively, in Fig. 11 and also element 108) that fixes a first paper feed container (11) to a second paper feed container (12) and unfixes the first paper feed container (11) from the second paper feed container (12); and

a fixing and unfixing interlocking portion (element 36 located 3rd from the top in Fig. 11) that fixes each one of rest of the plurality of paper feed containers to at least another one of rest of the plurality of paper feed containers (13) in accordance with the fixing and unfixing portion fixing the first paper feed container (11) to the second paper feed container (12) and unfixes each one of rest of the plurality of paper feed containers from at least the another one of rest of the plurality of paper feed containers (13) in accordance with the fixing and unfixing portion unfixing the first paper feed container (11) to the second paper feed container (12).

Regarding claim 22, as best understood, Figs. 1-12 show a paper feeder (Fig. 2) comprising:

a first paper feed cassette (15) in which to store a recording medium;

a first locking portion (including 108 and the topmost element 36 in Fig. 11) that locks and unlocks the first paper feed cassette (15);

a second paper feed cassette (20) in which to store a recording medium; and

a second locking portion (including element 36 located 2nd from the top in Fig. 11) that locks and unlocks the second paper feed cassette (20);

wherein either one of the first and second locking portions locks either one of the first and second paper feed cassettes (15 and 20) when the other one of the first and second locking portions locks the other one of the first and second paper cassettes (15 and 20) and either one of the first and second locking portions unlocks either one of the first and second paper feed cassettes (15 and 20) when the other one of the first and second locking portions unlocks the other one of the first and second paper feed cassettes (15 and 20).

4. Claims 1-2, 5, 20 and 22, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,915,802 (Siler).

Regarding claim 1, Figs. 1-5 show a paper feeder (Abstract) comprising:

a first paper feed cassette (26a) in which to store a recording medium with a lock state that is selected from an unlocked state (e.g., Fig. 1) where the recording medium can be taken out therefrom and a locked state (e.g., Fig. 5) where the recording medium cannot be taken out therefrom;

a locking portion (32) that brings the lock state of the first paper feed cassette (26a) into the unlocked state or the locked state;

a second paper feed cassette (26b) in which to store a recording medium, capable of selectively entering an unlocked state (e.g., Fig. 1) where the recording medium can be taken out therefrom and a locked state (e.g., Fig. 5) where the recording medium cannot be taken out therefrom; and

a lock state transmitting portion (40 or 40") that transmits the lock state of the first paper feed cassette (26a) to the second paper feed cassette (26b) to bring the second

paper feed cassette (26b) into the unlocked state or the locked state in accordance with the lock state of the first paper feed cassette (26a).

Regarding claim 2, Figs. 1-5 show that the lock state transmitting portion (40 or 40") mechanically transmits the lock state of the first paper feed cassette (26a) to the second paper feed cassette (26b).

Regarding claim 5, Figs. 1-5 show an apparatus fixing unit (including 72) that fixes the paper feeder to a support base (including 18') when the locking portion (40") brings the lock state of the first paper feed cassette (26a) into the locked state.

Regarding claim 20, Figs. 1-5 show at least one more paper feed cassette (26c) in which to store a recording medium, capable of selectively entering an unlocked state (e.g., Fig. 1) where the recording medium can be taken out therefrom and a locked state (e.g., Fig. 5) where the recording medium cannot be taken out therefrom;

wherein the lock state transmitting portion (40 or 40") further transmits the lock state of the first paper feed cassette (26a) to the at least one more paper feed cassette (26c) to bring the at least one more paper feed cassette (26c) into the unlocked state or the locked state in accordance with the lock state of the first paper feed cassette (26a).

Regarding claim 22, Figs. show a paper feeder comprising:
a first paper feed cassette (26a) in which to store a recording medium;
a first locking portion (portion of element 40 that covers the first paper feed cassette 26a in Fig. 2) that locks and unlocks the first paper feed cassette (26a);
a second paper feed cassette (26b) in which to store a recording medium; and

a second locking portion (portion of element 40 that covers the second paper feed cassette 26b in Fig. 2) that locks and unlocks the second paper feed cassette (26b);

wherein either one of the first and second locking portions locks either one of the first and second paper feed cassettes (26a and 26b) when the other one of the first and second locking portions locks the other one of the first and second paper cassettes (26a and 26b) and either one of the first and second locking portions unlocks either one of the first and second paper feed cassettes (26a and 26b) when the other one of the first and second locking portions unlocks the other one of the first and second paper feed cassettes (26a and 26b).

5. Claims 1-4, 6-8 and 22-23, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Publication No. 9-222756.

Regarding claim 1, Figs. 1-7 show a paper feeder comprising:

a first paper feed cassette (lower element 13) in which to store a recording medium with a lock state that is selected from an unlocked state (Fig. 5) where the recording medium can be taken out therefrom and a locked state (Fig. 7) where the recording medium cannot be taken out therefrom;

a locking portion (lower element 21) that brings the lock state of the first paper feed cassette (lower element 13) into the unlocked state or the locked state;

a second paper feed cassette (upper element 13) in which to store a recording medium, capable of selectively entering an unlocked state (Fig. 5) where the recording

medium can be taken out therefrom and a locked state (Fig. 7) where the recording medium cannot be taken out therefrom; and

a lock state transmitting portion (22) that transmits the lock state of the first paper feed cassette (lower element 13) to the second paper feed cassette (upper element 13) to bring the second paper feed cassette (upper element 13) into the unlocked state or the locked state in accordance with the lock state of the first paper feed cassette (lower element 13).

Regarding claim 2, Figs. 1-7 show that the lock state transmitting portion (22) mechanically transmits the lock state of the first paper feed cassette (lower element 13) to the second paper feed cassette (upper element 13).

Regarding claim 3, Fig. 1 shows that the first paper feed cassette (lower element 13) is provided integrally with the locking portion.

Regarding claim 4, Fig. 4 shows that the second paper feed cassette (upper element 13) includes an avoidance unit (including 35) that allows the second paper feed cassette (upper element 13) to avoid being brought into the locked state by the lock state transmitting portion (22).

Regarding claim 6, Figs. 1 and 5 show a first paper feed cassette unit (Fig. 1) including the first paper feed cassette (lower element 13); and

a second paper feed cassette unit (Fig. 1) including the second paper feed cassette (upper element 13);

wherein the first paper feed cassette unit and the second paper feed cassette unit are separated from each other, being removably attached to each other.

Regarding claim 7, Figs. 1-7 show a unit fixing unit (upper element 21) that fixes the paper feed cassette unit (Fig. 1) to the second paper feed cassette unit (Fig. 1) when the locking portion (lower element 21) is operated to bring the lock state of the first paper feed cassette (lower element 13) into the locked state.

Regarding claim 8, Fig. 1 shows that one of the first paper feed cassette unit and the second paper feed cassette unit is an image forming apparatus body of an image forming apparatus.

Regarding claim 22, Figs. 1-3 and 5 show a paper feeder comprising:
a first paper feed cassette (lower element 13) in which to store a recording medium;
a first locking portion (lower element 21) that locks and unlocks the first paper feed cassette (lower element 13);
a second paper feed cassette (upper element 13) in which to store a recording medium; and

a second locking portion (upper element 21) that locks and unlocks the second paper feed cassette;
wherein either one of the first and second locking portions locks either one of the first and second paper feed cassettes (upper and lower elements 13 and 13) when the other one of the first and second locking portions locks the other one of the first and second paper cassettes (upper and lower elements 13 and 13) and either one of the first and second locking portions unlocks either one of the first and second paper feed cassettes (upper and lower elements 13 and 13) when the other one of the first and

second locking portions unlocks the other one of the first and second paper feed cassettes.

Regarding claim 23, Figs. 1-7 show an image forming apparatus (English Abstract) comprising:

an image forming apparatus body (11); and

a paper feeder (inherent in an image forming device. Also, English Abstract refers to each "feeding" cassette) that feeds paper to the image forming apparatus body (11);

wherein the paper feeder includes a first paper feed cassette (lower element 13) in which to store a recording medium with a lock state that is selected from an unlocked state (Fig. 5) where the recording medium can be taken out therefrom and a locked state (Fig. 1) where the recording medium cannot be taken out therefrom,

a locking portion (lower element 21) that brings the lock state of the first paper feed cassette (lower element 13) into the unlocked state or the locked state,

a second paper feed cassette (upper element 13) in which to store a recording medium, capable of selectively entering an unlocked state (Fig. 5) where the recording medium can be taken out there from and a locked state (Fig. 1) where the recording medium cannot be taken out therefrom, and

a lock state transmitting portion (22) that transmits the lock state of the first paper feed cassette (lower element 13) to the second paper feed cassette (upper element 13) to bring the second paper feed cassette (upper element 13) into the unlocked state or

the locked state in accordance with the lock state of the first paper feed cassette (lower element 13).

6. Claims 1-3, 6-8 and 20-23, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Publication No. 4-217521.

Regarding claim 1, Figs. 1-5 show a paper feeder (Fig. 2) comprising:

a first paper feed cassette (lowest element 11) in which to store a recording medium with a lock state that is selected from an unlocked state (English Abstract) where the recording medium can be taken out therefrom and a locked state (English Abstract) where the recording medium cannot be taken out therefrom;

a locking portion (23 and/or 22) that brings the lock state of the first paper feed cassette (lowest element 11) into the unlocked state or the locked state;

a second paper feed cassette (topmost element 11) in which to store a recording medium, capable of selectively entering an unlocked state (English Abstract) where the recording medium can be taken out therefrom and a locked state (English Abstract) where the recording medium cannot be taken out therefrom; and

a lock state transmitting portion (including 24 or 27) that transmits the lock state of the first paper feed cassette (lowest element 11) to the second paper feed cassette (topmost element 11) to bring the second paper feed cassette (topmost element 11) into the unlocked state or the locked state in accordance with the lock state of the first paper feed cassette (lowest element 11).

Regarding claim 2, Figs. 1-5 show that the lock state transmitting portion (including 24 or 27) mechanically transmits the lock state of the first paper feed cassette (lowest element 11) to the second paper feed cassette (topmost element 11).

Regarding claim 3, Fig. 2 shows that the first paper feed cassette (lowest element 11) is provided integrally with the locking portion.

Regarding claim 6, Figs. 1-5 disclose a first paper feed cassette unit (Fig. 2) including the first paper feed cassette (lowest element 11); and

a second paper feed cassette unit (Fig. 2) including the second paper feed cassette (topmost element 11);

wherein the first paper feed cassette unit (Fig. 2) and the second paper feed cassette unit (Fig. 2) are separated from each other, being removably attached to each other.

Regarding claim 7, Figs. 1-5 disclose a unit fixing unit (i.e., outer casing of the image formation device) that fixes the paper feed cassette unit (Fig. 2) to the second paper feed cassette unit (Fig. 2) when the locking portion (23) is operated to bring the lock state of the first paper feed cassette (lowest element 11) into the locked state.

Regarding claim 8, Figs. 1-5 show that one of the first paper feed cassette unit (Fig. 2) and the second paper feed cassette unit (Fig. 2) is an image forming apparatus body of an image forming apparatus.

Regarding claim 20, Figs. 1-5 show at least one more paper feed cassette (middle element 11) in which to store a recording medium, capable of selectively entering an unlocked state (English Abstract) where the recording medium can be taken

out therefrom and a locked state (English Abstract) where the recording medium cannot be taken out therefrom;

wherein the lock state transmitting portion (including 24 or 27) further transmits the lock state of the first paper feed cassette (lowest element 11) to the at least one more paper feed cassette (middle element 11) to bring the at least one more paper feed cassette (middle element 11) into the unlocked state or the locked state in accordance with the lock state of the first paper feed cassette (lowest element 11).

Regarding claim 21, as best understood, Figs. 1-5 show a paper feeder comprising:

a plurality of paper feed containers (lowest and topmost elements 11 and 11) in each of which to store a recording medium;

a fixing and unfixing portion (including 23 and 24) that fixes a first paper feed container (lowest element 11) to a second paper feed container (topmost element 11) and unfixes the first paper feed container (lowest element 11) from the second paper feed container (topmost element 11); and

a fixing and unfixing interlocking portion (Fig. 2) that fixes each one of rest of the plurality of paper feed containers to at least another one of rest of the plurality of paper feed containers (middle element 11) in accordance with the fixing and unfixing portion fixing the first paper feed container (lowest element 11) to the second paper feed container (topmost element 11) and unfixes each one of rest of the plurality of paper feed containers from at least the another one of rest of the plurality of paper feed containers (middle element 11) in accordance with the fixing and unfixing portion

unfixing the first paper feed container (lowest element 11) to the second paper feed container (topmost element 11).

Regarding claim 22, as best understood, Figs. 1-5 show a paper feeder comprising:

a first paper feed cassette (lowest element 11) in which to store a recording medium;

a first locking portion (including 23) that locks and unlocks the first paper feed cassette (lowest element 11);

a second paper feed cassette (topmost element 11) in which to store a recording medium; and

a second locking portion (Fig. 2) that locks and unlocks the second paper feed cassette (topmost element 11);

wherein either one of the first and second locking portions locks either one of the first and second paper feed cassettes (lowest and topmost elements 11 and 11) when the other one of the first and second locking portions locks the other one of the first and second paper cassettes (lowest and topmost elements 11 and 11) and either one of the first and second locking portions unlocks either one of the first and second paper feed cassettes (lowest and topmost elements 11 and 11) when the other one of the first and second locking portions unlocks the other one of the first and second paper feed cassettes (lowest and topmost elements 11 and 11).

Regarding claim 23, Figs. 1-5 show an image forming apparatus (English Abstract) comprising:

an image forming apparatus body (5); and
a paper feeder (Fig. 2) that feeds paper to the image forming apparatus body (5);
wherein the paper feeder includes a first paper feed cassette (lowest element 11)
in which to store a recording medium with a lock state that is selected from an unlocked
state (English Abstract) where the recording medium can be taken out therefrom and a
locked state (English Abstract) where the recording medium cannot be taken out
therefrom,
a locking portion (23 and/or 22) that brings the lock state of the first paper feed
cassette (lowest element 11) into the unlocked state or the locked state,
a second paper feed cassette (topmost element 11) in which to store a recording
medium, capable of selectively entering an unlocked state (English Abstract) where the
recording medium can be taken out there from and a locked state (English Abstract)
where the recording medium cannot be taken out therefrom, and
a lock state transmitting portion (including 24 or 27) that transmits the lock state
of the first paper feed cassette (lowest element 11) to the second paper feed cassette
(topmost element 11) to bring the second paper feed cassette (topmost element 11) into
the unlocked state or the locked state in accordance with the lock state of the first paper
feed cassette (lowest element 11).

Allowable Subject Matter

7. Claims 9-15 would be allowable if rewritten to overcome the rejection(s)
under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of
the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

01/06/2007



PATRICK MACKEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600